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ABSTRACT

Apparatus for manufacturing multi-layer metal feedstock material for stamping shaped parts eliminates the need for rolls of metal at the stamping site. Multilayer metal feedstock material is assembled from multiple rolls of metal stock, then folded in a zig zag fashion, or "Z-fold" configuration, whereby the multilayer metal assembly is stacked vertically, usually on conventional pallets, for ease of moving with a forklift or otherwise. The multilayer metal z-fold stack of material is then transported to a parts stamping operation where the material is used as it unfolds as a continuous feed to machines to produce shaped multilayer metal parts. This invention is most useful in making multilayer metal foil z-fold feedstock material and using the z-fold material as continuous feed to processes for making shaped multilayer metal foil parts. The layers may have non-metal layers of material, such as fiber, between the metal layers or on the outside of the metal layers. At the location of making the shaped parts from the feedstock material, the layers of the z-fold feedstock material may be separated and one or more of the layers treated, textured, embossed, etc., then reassembled into the stack which is fed to the stamping operation, all on a continuous basis. This enables the z-fold feedstock material to be made from smooth metal layers, which increases the density of the material and reduces the volume space required for storage of the z-fold material.

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